

# Inversion and Monitoring of the TP Concentration in Taihu Lake Using the Landsat-8 and Sentinel-2 Images

Yongchun Liang <sup>1,†</sup>, Fang Yin <sup>2,†</sup>, Danni Xie <sup>2</sup>, Lei Liu <sup>1,\*</sup>, Yang Zhang <sup>3</sup> and Tariq Ashraf <sup>1</sup>

<sup>1</sup> School of Earth Science and Resources, Chang'an University, Xi'an 710054, China

<sup>2</sup> Shaanxi Key Laboratory of Land Consolidation, School of Land Engineering, Chang'an University, Xi'an 710054, China

<sup>3</sup> School of Human Settlements and Civil Engineering, Xi'an Jiaotong University, Xi'an 710049, China

\* Correspondence: liul@chd.edu.cn; Tel.: +86-29-82339936

† These authors contributed equally to this work.

## Supplementary Tables

**Table S1.** Dates each sampling sites in Taihu Lake in August and September,2016

Sampling sites	Date	TP (mg/L)	Date	TP (mg/L)
SHN	1 August 2016	0.11	2 September 2016	0.09
XD	1 August 2016	0.09	2 September 2016	0.07
XHX	2 August 2016	0.02	6 September 2016	0.04
MLH	1 August 2016	0.16	2 September 2016	0.18
YXG	2 August 2016	0.02	6 September 2016	0.03
XMK	3 August 2016	0.03	7 September 2016	0.05
XTG	3 August 2016	0.03	7 September 2016	0.04
LSZ	3 August 2016	0.09	7 September 2016	0.06
DPK	4 August 2016	0.08	8 September 2016	0.06
ZSH	1 August 2016	0.26	2 September 2016	0.08
XSX	4 August 2016	0.04	7 September 2016	0.06
MS	2 August 2016	0.04	6 September 2016	0.05
WGS	2 August 2016	0.05	6 September 2016	0.03
JS	4 August 2016	0.10	8 September 2016	0.15
TS	1 August 2016	0.09	2 September 2016	0.08
DLS	3 August 2016	0.05	7 September 2016	0.04
ZS	2 August 2016	0.02	6 September 2016	0.04
SSH	4 August 2016	0.06	7 September 2016	0.08
PTS	4 August 2016	0.05	7 September 2016	0.08
WLH	3 August 2016	0.06	1 September 2016	0.11

**Table S2.** Time interval between images and sampling sites

Data		Modeling		Validation	
Sampling	TP	1-4 August, 2016	1-8 September, 2016	1 August, 2017	1 September, 2016
Image	Landsat-8	27 July, 2016	28 August, 2016	30 July, 2016	/
	Sentinel-2	23 July, 2016	1 September, 2016	28 July, 2016	27 August, 2016
interval (/day)	Landsat-8	5-8	4-11	2	/
	Sentinel-2	9-12	0-8	4	5